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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 31862-000077	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/US02/40058	International filing date (day/month/year) 17 December 2002 (17.12.2002)	Priority date (day/month/year) 20 December 2001 (20.12.2001)
International Patent Classification (IPC) or national classification and IPC IPC(7): G06F 15/16 and US Cl.: 709/208, 223, 224; 399/8; 714/4		
Applicant QUESTRA CORPORATION		
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>3</u> sheets, including this cover sheet.</p> <p><input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of <u>3</u> sheets.</p> <p>3. This report contains indications relating to the following items:</p> <p>I <input checked="" type="checkbox"/> Basis of the report</p> <p>II <input type="checkbox"/> Priority</p> <p>III <input type="checkbox"/> Non-establishment of report with regard to novelty, inventive step and industrial applicability</p> <p>IV <input type="checkbox"/> Lack of unity of invention</p> <p>V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p>VI <input type="checkbox"/> Certain documents cited</p> <p>VII <input type="checkbox"/> Certain defects in the international application</p> <p>VIII <input type="checkbox"/> Certain observations on the international application</p>		
Date of submission of the demand 14 July 2003 (14.07.03)	Date of completion of this report 10 June 2004 (10.06.2004)	
Name and mailing address of the IPEA/US Mail Stop PCT, Attn: IPEA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230	Authorized officer <i>Peggy Hand</i> William C. Vaughn, Jr. Telephone No. (703) 305-9700	

Form PCT/IPEA/409 (cover sheet)(July 1998)

I. Basis of the report1. With regard to the **elements** of the international application:*

- ☒ the international application as originally filed.
- ☒ the description:
pages 1-20 as originally filed
pages NONE, filed with the demand
pages NONE, filed with the letter of _____.
- ☒ the claims:
pages NONE, as originally filed
pages NONE, as amended (together with any statement) under Article 19
pages NONE, filed with the demand
pages 21-23, filed with the letter of 21 May 2004 _____.
- ☒ the drawings:
pages 1-6, as originally filed
pages NONE, filed with the demand
pages NONE, filed with the letter of _____.
- ☐ the sequence listing part of the description:
pages NONE, as originally filed
pages NONE, filed with the demand
pages NONE, filed with the letter of _____.

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in printed form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☒ The amendments have resulted in the cancellation of:

- ☒ the description, pages none
- ☒ the claims, Nos. none
- ☒ the drawings, sheets/fig none

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/US02/40058**V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. STATEMENT**

Novelty (N)	Claims <u>NONE</u>	YES
	Claims <u>1-31</u>	NO
Inventive Step (IS)	Claims <u>none</u>	YES
	Claims <u>1-31</u>	NO
Industrial Applicability (IA)	Claims <u>1-31</u>	YES
	Claims <u>NONE</u>	NO

2. CITATIONS AND EXPLANATIONS

Claims 1-31 lacks an inventive step under PCT Article 33(3) as being obvious over Levine et al. (Levine), U.S. Patent No. 5,974,234.

Regarding claim 1, Levine discloses an apparatus for connecting a remote machine to a central system by way of a network comprising: a message generator for creating an application layer message document including a unique machine name and password combination in a hypertext format suitable for transmission over the network, the message comprising information identifying the type of machine; a receiver for receiving and storing a unique identifier, the message generator subsequently creating machine using the unique identifier [see Col. 8, lines 5-55]. However, Levine does not explicitly disclose a central system. Thus, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made for Levine to have included a central system to transmit to a receiver for receiving and storing a unique identifier.

Regarding claim 2, Levine discloses in which the network is a TCP/IP network (This feature is well known in the art).

Regarding claim 3, Levine discloses in which the network is a wireless network (This feature is well known in the art).

Regarding claim 4, Levine discloses in which the connection is established through a gateway device that provides protocol or address translation (well known in the art).

Regarding claims 5-31, the limitations of these claims are considered well known in the art as well as being taught within the figures of Levine.

Claims 1-31 meet the criteria set out in PCT Article 33(4), and thus meet industrial applicability because the subject matter claimed can be made or used in industry.

Consideration of Applicant's amendment to the claims has been given by the Examiner.

----- NEW CITATIONS -----

US 5,974,234 A (LEVINE et al) 26 OCTOBER 1999, ABSTRACT, COL. 7, LINES 1-67 AND COL. 8, LINES 1-67.

CLAIMS

1. Apparatus for connecting a remote machine to a central system by way of a public network comprising:
 - a message generator for creating an application layer message document including a unique machine name and password combination in a hypertext format suitable for transmission over the network, the message comprising information identifying the machine;
 - a receiver for receiving and storing a response from a central system,
 - the message generator subsequently creating messages using the unique identifier.
2. The apparatus of claim 1 in which the network is a TCP/IP network.
3. The apparatus of claim 1 in which the network is a wireless network.
4. The apparatus of claim 1 in which the connection is established through a gateway device that provides protocol or address translation.
5. The apparatus of claim 1 comprising memory in the central system for storing the unique machine name and password and information identifying the type of machine.
6. The apparatus of claim 1 in which the message is a registration message.
7. The apparatus of claim 6 in which the registration message includes:
 - identifying information; information on the type of asset (e.g. Manufacturer, Product, Model, Version); network address and accessibility.
8. The apparatus of claim 6 comprising memory for storing a token indicating that the machine is registered, and inhibiting subsequent sending of registration messages.
9. The apparatus of claim 6 in which the registration message includes a non-unique identifier and the response from the server includes a unique identifier to be used by the asset in subsequent messages.
10. Apparatus for connecting a remote machine to a central system comprising:
 - a message generator for sending a registration message to a central system, the registration message including a unique identifier;
 - memory for storing a schedule;

a scheduler for periodically activating the message generator according to the stored schedule;

a receiver, activated for a predetermined time after the message generator is activated for receiving messages from the central system.

11. The apparatus of claim 9 comprising a receiver for receiving an acknowledgement of the registration message and storing a token indicating that the machine is registered.

12. The apparatus of claim 11 comprising a controller for inhibiting the sending of subsequent registration messages in response to the token.

13. The apparatus of claim 10 in which the receiver receives a schedule from a central system and stores the schedule in the memory.

14. The apparatus of claim 13 in which the receiver receives a schedule from a central system in response to a registration message.

15. The apparatus of claim 10 in which the remote machine is a gateway device that provides protocol or address translation to further machines.

16. The apparatus of claim 15 in which the gateway maintains the schedule and interacts with the further machines as required to satisfy the schedule.

17. Apparatus for connecting a remote machine to a central system through a firewall that prevents incoming connections to the machine comprising:

a message generator for sending a registration message to a central system;

memory for storing a schedule;

a scheduler for periodically activating the message generator according to the stored schedule for creating a temporary two way connection to a central system.

18. The apparatus of claim 17 comprising a listener responsive to messages from the central system.

19. The apparatus of claim 18 in which the apparatus receives a schedule from the central system and stores the schedule in the memory.

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20. Apparatus for connecting a remote machine to a central system through a system that establishes solely transient connections to the machine and the central system comprising:

a message generator for sending a registration message to a central system;

memory for storing a schedule;

a scheduler for periodically activating the message generator according to the stored schedule for sending messages to the central system, each message including a message identifier;

a listener receiving messages from the central system, each received message including a message identifier corresponding to the message identifier of one sent message

21. Apparatus for connecting a remote machine to a central system through a system that establishes solely transient connections to the machine and the central system comprising:

a message generator for sending a registration message to a central system;

a listener receiving messages from the central system, each received message including a message identifier

the message generator sending responsive messages to the central system, each responsive message including a message identifier corresponding to the message identifier of one received message;

22. A method of communicating between a server and an asset comprising the steps of:

queuing one or more request messages on the server;

logging the one or more request messages on the server;

sending a polling message from the asset to the server;

sending one of the one or more request messages to the asset in response to the polling message;

sending a responsive message from the asset to the server;

receiving the responsive message at the server and reconciling the responsive message with the logged request;

continuing to send request messages to the asset until the queue is empty.

23. The method of claim 22 in which the step of sending a polling message comprises sending polling messages at a predetermined interval.